DOCUMENT RESUME

ED 390 485 JC 960 065

AUTHOR Rasor, Richard A.; Barr, James E.
TITLE The Transfer Ready Model: A Companion Measure to the Intersegmental Transfer Rate.
INSTITUTION American River Coll., Sacramento, CA. Office of Research and Development.
PUB DATE Jun 95
NOTE 18p.; For a related document, see JC 960 064.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Articulation (Education); College English; College Freshmen; College Mathematics; *College Outcomes Assessment; *College Transfer Students; Community Colleges; Eligibility; *Research Methodology; Two Year Colleges
IDENTIFIERS American River College CA; *Transfer Rates (College)

ABSTRACT

The transfer ready model was developed at American River College, in California, because of limitations with traditional methods for calculating community college to university transfer rates. The transfer ready model uses a percentage derived from a ratio of two student counts: the number of transfer ready students divided by the number of transfer directed students, multiplied by 100. Transfer directed students are defined as fall semester freshmen with no prior college units who subsequently enroll in beginning transfer-level English composition and math courses within 4 years from the time of initial enrollment. Transfer ready students are those who meet the definition of transfer directed and who also receive a final grade of "C" or higher in both courses and earn more than 56 units in transfer courses with a grade point average of at least 2.0 in those transfer courses. Transfer ready rates were calculated for the college for fall freshmen from 1987 through 1991, but allowing only 4 years for completion of transfer ready requirements for each cohort. While an overall transfer ready rate of 46.9% was obtained for all 17,468 first-time freshmen in the period, significant variations were found in the rate between semesters, ranging from 41.3% to 50.7%. Data tables are appended.
(Author/TGI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 390 485

The Transfer Ready Model: A Companion Measure to the Intersegmental Transfer Rate

by

Richard A. Rasor

&

James E. Barr

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
R. Rasor
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Office of Research and Development
American River College
4700 College Oak Drive
Sacramento, CA 95841

(916) 484-8306

June 1995

BEST COPY AVAILABLE

JC 960 065

Abstract

The Transfer Ready Model: A Companion Measure to the Intersegmental Transfer Rate

The transfer ready model was largely developed because of certain shortcomings with the manner in which the transfer rate from community college to university is calculated. These limitations include undercounting of students who transferred, lack of an adequate definition for a student group that legitimately can be expected to transfer (as opposed to all community college students), and having no control over university costs and restricted enrollment policies which impact the community college transfer rate. The new model is essentially a measure of institutional effectiveness and can be used in conjunction with a transfer rate. The transfer ready model uses a percentage rate derived from a ratio of two student counts: **Transfer ready/transfer directed x 100**. The **transfer directed** are those fall semester freshmen students, without prior college units, who subsequently enrolled in the beginning transfer level English composition course (or ESL equivalent) **and** a transfer level math course (or statistics) within a period of four years from the time of initial enrollment. The English and math or statistics courses must be listed as partially satisfying the area general education requirements for the California State University system. Only enrollment - not necessarily completion in these courses, is the requisite for being transfer directed. However, there must be some final grade notation - even a "W," indicating that, at some time within four years, the student was officially enrolled in the courses as of first census. The **transfer ready** are those students who meet the definition of transfer directed and who also complete the following - all within four years from initial enrollment: Received a final grade of "C" or higher (or credit CR notation) in both the transfer English composition course (or ESL equivalent) and the transfer level math or statistics course, and earned 56+ units in transfer courses with a grade-point average of at least 2.00 in those transfer courses. Data from fall semesters of 1987 through 1991, but allowing only four years for completion of transfer ready requirements for each group, resulted in a range of transfer ready rates from 41.3% to 50.7% with an overall rate of 46.9% based upon 17,468 freshmen - 3,898 of whom were transfer directed.

Acknowledgments

We would like to thank Sharon McCuen, Dean of Research & Development, for her consistent support of our efforts to "give research away," not only to faculty and students, but to the entire research community.

Our new American River College president, Dr. Marie Smith, has a reputation for giving solid support to institutional research. We are very fortunate and look forward to producing meaningful research under her leadership.

The entire administration at our college has never failed to lend their support to us. In particular, Rosemary Montijo, Vice President of Student Services; Joe Howard, Vice President of Instruction; and Al Goston, Dean of Counseling. We thank them all.

During the early evolution of the transfer ready model, two people were of immense help: Sue Lorimer and John McGregor, both from ARC's Counseling Department. They were instrumental in pointing out all the idiosyncrasies of preparing for transfer.

Dr. John Evans, of San Joaquin Delta College, was an early supporter of the transfer readiness concept. We thank him for his encouragement with this model.

Collaboration with Les Birdsall and Larry Boese of Diablo Valley College during the developing stages of the transfer readiness model greatly helped to sharpen our thinking and move the research forward. They are great colleagues and we thank them.

Very importantly, the Los Rios Office of Planning and Research provided the necessary downloads of student transcript data which made the entire project possible. Dr. Carol McKenzie was also an ardent supporter of the transfer ready model along with her excellent staff, Dr. Judy Beachler and Jose Pagtalunan. Our deep thanks to these people.

R. R.
J. B.

The Transfer Ready Model: A Companion Measure to the Intersegmental Transfer Rate

The number of students who exit a community college and transfer to a four-year university is a logical measure of the effectiveness with which any community college achieves its mission of transfer. Unfortunately, simple counts of transferred students, as reported back by the universities, are difficult to interpret beyond that of a simple yearly trend. Social security numbers of transferred students also need to be provided in order to know when these students left a community college and what courses they took. Presently, the universities only provide that information following a special request.

A dimension of transfer that subsequently evolved was a "rate," that is, a measure indicating what percent of community college students transfer. However, a rate poses certain problems too. The number of students who actually transfer, the numerator for a rate, is relatively straightforward provided that the counts are accurate. Often they are not. The primary difficulty rests with defining the rate's denominator, that is, some student cohort upon which the percent is based.

There is near unanimity among California's community college personnel that the base group for a rate should not be all students. Not all students intend to transfer, and of those who do, not all take the correct courses or have the necessary abilities. Granted that while these are "good" reasons for not including all students in a denominator, a more politically compelling reason is the likelihood that such a rate would be embarrassing low - a result that could create the impression that community colleges are not doing a good job of fulfilling one of their missions which in turn could ultimately have serious negative consequences for funding.

Because of these reasons, there have been attempts to define a better cohort for the denominator, e.g., all students who completed at least 12 units prior to leaving the community college, or completed the transfer level English composition course and 12 units.

A computer search of the literature stored in the ERIC database yielded many references for transfer, but relatively few articles reported the operational definition for the denominator in calculation of a transfer rate.

The Colorado Commission on Higher Education (1991) reports a statewide community college transfer rate of 20.7% using as a cohort all students completing 12+ units and transferring within four years of entry.

Using a restricted group of freshmen majoring in business administration, Hamilton (1993a) reports a transfer rate within four years of 38% for Gainesville College students

in Georgia. The same author also reports a transfer rate of 35.7% for all transfer majors from that institution (Hamilton, 1993b).

Clagett (1993) of Prince George's Community College in Maryland reports an overall transfer rate within four years of 27%, a rate of 36% for students completing 12 or more units, and a 65% transfer rate for those students indicating transfer as a goal and completing at least 12 units.

An ambitious attempt to document the transfer rate for a national sample was undertaken by Cohen (1991) at the Center for the Study of Community Colleges (UCLA). Also known as the Transfer Assembly Study (TA) with 114 participating community colleges by the second year, Cohen reports an overall transfer rate of about 25% given the cohort of new freshmen without prior units who completed at least 12 units and given a time span of four years from entry at the community college.

Armstrong & Barnes (1995) give an updated national transfer rate for the Transfer Assembly of 21.3%, 18.5% for California, and 16.1% for the San Diego Community College District.

Other researchers have also provided information on transfer rates that are very useful, e.g., Sanchez (1994) and yearly documents from BW Associates of California (1994) who reported a transfer rate of 19% for American River College and a state average of 14%.

Given the present differences in denominator definitions reported in the research literature, the transfer rate for community colleges ranges between 14% to 65%! Such dispersion of values is apt to raise questions about how strongly certain community colleges are pursuing their mission of transfer.

Problems with the Transfer Rate

Given the present state of technology, it is impossible to account for every student who leaves the community college system and enters a university. For example, there have been undercounts of students entering private universities within California, and virtually no counts of students enrolling in out-of-state institutions. Some students are currently enrolled in a community college and a university - a situation where they would not be counted if the transfer rate contains a provision of having left the community college, e.g., T/L (transfers over leavers).

As previously stated, not all students intend to transfer nor do all students have the necessary motivation or ability. It seems absurd, then, to use as the denominator in a transfer rate - all freshmen students who enrolled in a community college as of a certain date, or all students who completed 12 units.

Most existing transfer rate calculations allow a time span of four years between entry at the community college and arrival at a university. In our opinion, this is a little short because the majority of transfer students barely complete their lower division requirements within four years. At American River College, the median load per semester for day students is 8.8 units. Adding at least another year would be more realistic for determining if a student registered at a university.

Finally, there is a problem when universities raise their overall costs or restrict enrollments in some way. Clearly, the community colleges cannot take full responsibility for a decreasing transfer rate when they have no control over university actions. The dream of receiving a bachelor's degree is fading, or at least deferred, for many people who simply cannot conveniently reshuffle their order of financial obligations. One has to keep in mind that the median age of community college students at ARC is in the mid-twenties. Along with this age typically goes all the other demographic characteristics such as marriage, children, divorce, job changes, and debt.

The Transfer Ready Model

Beginning in 1994, we put considerable effort into working out a model that was based upon a student reaching a point of being eligible to transfer. It seemed to us that a primary responsibility for community colleges is to prepare students for transfer - not only in terms of quantity but quality. It also seemed logical to eventually extend the model to include answering the question, "Of those students who became eligible, how many actually transferred?" Such a model would be an improvement over using all students completing 12 units as the denominator in a transfer rate. Concurrently, Les Birdsall and Larry Boese of Diablo Valley College (1995) were working on a similar model. The complete evolution and subsequent refinements of our model and how it contrasted with theirs is outlined in our research paper presented at the RP Annual Conference in March of 1995 (see Rasor & Barr, 1995). Opinions expressed in forums at that research conference prompted us to make some further refinements of the model which eventually resulted in a complete resolution of the differences between the two approaches, i.e., Rasor/Barr *vs.* Birdsall/Boese.

The transfer ready model uses a percentage rate derived from a ratio of two student cohort counts:

$$\frac{\textbf{transfer ready}}{\textbf{transfer directed}} \times 100$$

The ***transfer directed*** are those fall semester freshmen students, without prior college units, who subsequently enroll, as of first census, in the beginning transfer level English composition course (or ESL equivalent) and a transfer level math course (or statistics) within a period of four years from the time of initial enrollment. The English and math or statistics courses must be listed as partially satisfying the area general

education requirements for the California State University system. Note that only enrollment - not necessarily completion in these courses, is the requisite for being transfer directed. However, there must be some final grade notation - even a "W," indicating that, at some time within four years, the student was officially enrolled in the courses as of first census.

The ***transfer ready*** are those students who meet the definition of transfer directed and who also complete the following - all within four years from initial enrollment: Received a final grade of "C" or higher (or CR) in both the transfer English composition course (or ESL equivalent) and the transfer level math or statistics course, and earned 56+ units in transfer courses with a grade-point average of at least 2.00 in those transfer courses.

Procedure

We first isolated all new freshmen who had no prior units in our database. This was done for each fall semester starting with 1987 and ending with 1991. By continuously creating separate files, we then determined the number of freshmen who fit the definition of ***transfer directed***. From that cohort, we identified all those students who also met the definition of ***transfer ready***. Irrespective of the year a student entered American River College, each group was only given four years (including summer sessions) to complete their "requirements." Finally, the data were merged so that we had an overall transfer ready rate based upon five fall semesters.

Results

In Table 1 are transfer ready data for each of the fall semesters and the composite value.

Table 1. Raw Data Counts and Transfer Ready Rates for Five Semesters at American River College.

Fall Semester	N[1]	Transfer Directed	Transfer Ready	Transfer Ready Rate
1987	3,736	831	343	41.3%
1988	3,580	739	363	49.1%
1989	3,465	775	393	50.7%
1990	3,455	772	365	47.3%
1991	3,232	781	365	46.7%
All	**17,468**	**3,898**	**1,829**	**46.9%**

[1] New freshmen without prior college units.

BEST COPY AVAILABLE

While American River College has an overall transfer ready rate of 46.9%, there is a statistically significant variation among the fall semesters, chi square (df = 4; N = 3,898) = 16.59, $p < .01$. Thus, any researcher wishing to plot a trend is advised to merge two fall semesters in order to smooth out what could be routine variation. Complete worksheets for the values appearing in Table 1 may be found in the Appendix.

Discussion

Some preliminary work done with our sister colleges in the Los Rios District indicates that the transfer ready rate may vary considerably from one college to another. Armstrong & Barnes (1995) report data from the San Diego Community College District that resulted in a transfer ready rate of 52.6%. Interestingly, of those who reached transfer ready status, 63.3% had actually transferred.

In our previous work (Rasor & Barr, 1995), we concluded that full-time students reach transfer ready status faster than either part or middle-time students. Hardly a surprise! We also determined that restricting our initial freshmen cohort to only students indicating transfer as a goal made little difference in the transfer ready rate. A similar finding was that the goal of transfer did not have any dramatic effect upon the transfer rate either (Armstrong & Barnes, 1995). We also suggested that a period of four years was the optimum time period for this model in that our transfer ready rate for two years was only 16.1%; for three years it was 40.7%; four years was 46.9%; and for five years the rate was 49.9%. Extending the period out to six or more years may increase the rate slightly, but the population size gets smaller in a retroactive study because one must start with a group of freshmen that enrolled many years earlier. In a proactive study, a researcher is not apt to be happy over having to wait that many years for results. Finally, we determined that allowing units earned from sister colleges within our district only increased the rate slightly. To keep the model tight, we recommended only in-house units be allowed.

One aspect of the transfer ready model that should prove helpful toward student equity efforts is, that at each step, demographic breakouts are possible, i.e., the number who enroll in English, or the number completing English and math. One could readily determine, for example, how many Hispanic males enrolled and completed transfer level English composition. Such data breakouts are easily accomplished within the model through restricting the initial freshmen cohort to a specific group, e.g., new freshmen, Hispanic males.

A Look to the Future

As of now, it appears that the transfer ready model has a certain appeal. Informal discussions with some research colleagues have been favorable toward this approach. No doubt further refinements will be made. For example, if a student repeats a course, the procedures in the present model will average the initial final grade and the repeat

grade, something not done in actual practice because a substandard grade may be replaced by an improved grade.

The model will have to be pilot tested on several colleges, both to check on internal validity and to determine the amount of rate variation across community colleges. Presently, the model is restricted to new freshmen, yet there are thousands of advanced incoming students who also reach transfer ready status. Procedures need to be developed that will enable examining the rate for these students as well.

Finally, matching student social security numbers from data tapes provided by university systems will enable us to link actual transfer data with the transfer ready model. We can then determine what percent of transfer ready students actually transfer to a university within a specified period of time. It will also allow us to examine other cohort variations besides the traditional transfer ready. The schema in Figure 1 illustrates the linkage.

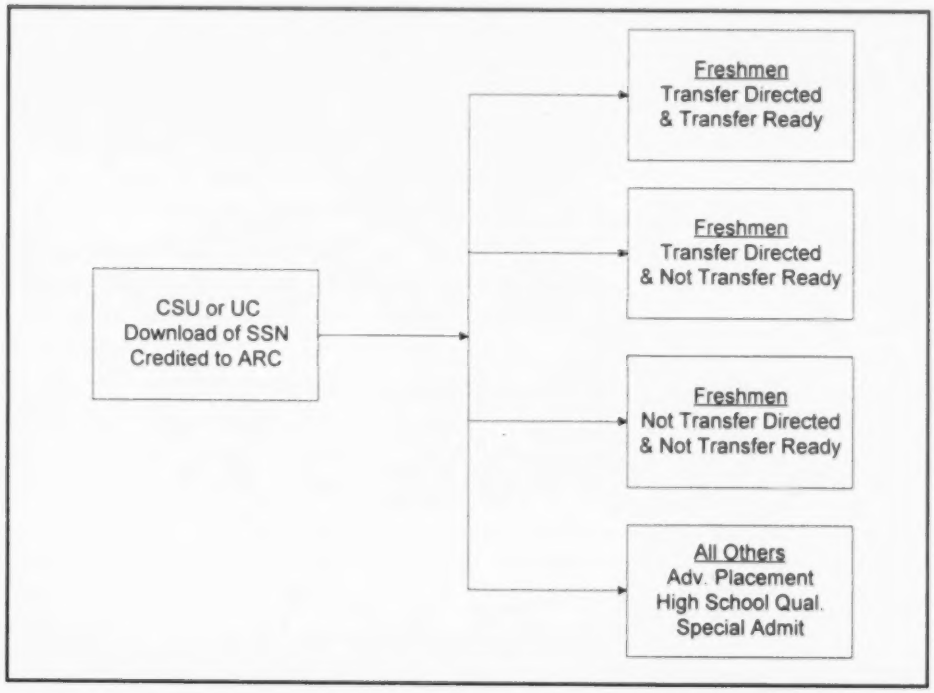

Figure 1. Intersegmental Analysis for Transfer: Schema Depicting Linkage Between Transfer Ready Status and Transfer Rate.

As always stated, there is a need for more research! This certainly applies to this model as well as to all transfer related activities. And collaborative efforts among community college researchers can only improve the quality of our endeavors.

References

Armstrong, W. B., & Barnes, R. A. (1995). Transfer: Data, definitions, and eligibility in the San Diego Community College District. San Diego, CA: San Diego Community College District. (ERIC Document Reproduction Service No. ED 381 215)

Birdsall, L. & Boese, L. (1995, March). Transfer eligibility: Further refinements and further directions. Paper presented at the meeting of the Research and Planning Group, San Diego, CA.

BW Associates. (1994). How to calculate and use the exiting cohort transfer rate measures. Berkeley, CA: BW Associates.

Clagett, C. A. (1993). PGCC transfers to Maryland public four-year colleges (Research Brief RB93-15). Largo, MD: Prince George's Community College, Office of Institutional Research and Analysis. (ERIC Document Reproduction Service No. ED 356 010)

Cohen, A. M. (1991). Building indicators of community college outcomes. Los Angeles, CA: Center for the Study of Community Colleges. (ERIC Document Reproduction Service No. ED 338 298)

Colorado Commission on Higher Education. (1991). Persistence and completion rates: Colorado public higher education, fall 1986 through fall 1990. Colorado Commission on Higher Education: Denver, CO: (ERIC Document Reproduction Service No. ED 345 788)

Hamilton, J. M. (1993a). Transfer rates of business administration majors at a two-year college. Gainesville, GA: Gainesville College, Office of Planning and Institutional Research. (ERIC Document Reproduction Service No. ED 361 038)

Hamilton, J. M. (1993b). First-time freshmen four-year transfer rates: Gainesville College to university system senior colleges and universities, fall 1988 to fall 1992. Gainesville, GA: Gainesville College, Office of Planning and Institutional Research. (ERIC Document Reproduction Service No. ED 341 443)

Rasor, R. A., & Barr, J. E. (1995, March). The transfer eligible rate: Longitudinal results of a companion measure to the transfer rate. Paper presented at the meeting of the Research and Planning Group, San Diego, CA.

Sanchez, J. R. (1994). The issue of transfer: Transfer data from CPEC/UC/CSU & the transfer assembly (Student Equity Report #2). Costa Mesa, CA: Coast Community College District, District Research Office. (ERIC Document Reproduction Service No. ED 371 776)

Appendix

TRANSFER READY WORKSHEET

FRESHMEN COHORT COMPOSITE[1]

For Semesters Fall 87, 88, 89, 90, 91

Enrollment Period: 4 years

Cohort		Calculation	Count	Percent
A	**FRESHMEN COHORT**	*Count Cohort A*	**17,468**	100.0
	TRANSFER DIRECTED			
B	Enrolled in transfer English writing course	*Count cohort B* *Percentage = B/A*	6,430	36.8
C	And enrolled in transfer math course	*Count cohort C* *Percentage = C/A*	3,898	22.3
	TRANSFER READY			
D	56+ transfer units	*Count cohort D* *Percentage = D/A*	2,051	11.7
E	And GPA 2.00+ (transfer courses)	*Count cohort E* *Percentage = E/A*	1,988	11.4
F	And successful completion of transfer English writing course	*Count cohort F* *Percentage = F/A*	1,961	11.2
G	And successful completion of transfer math course	*Count cohort G* *Percentage = G/A*	1,829	10.5
	TRANSFER READY RATE	*Count cohort G & C* Percentage = G/C	**1,829/3,898**	46.9

[1] New Freshmen without prior college units.

TRANSFER READY WORKSHEET

FRESHMEN COHORT FALL 1987

Enrollment Period: 4 years

Cohort		Calculation	Count	Percent
A	**FRESHMEN COHORT**	*Count Cohort A*	**3,736**	100.0
	TRANSFER DIRECTED			
B	Enrolled in transfer English writing course	*Count cohort B* *Percentage = B/A*	1,242	33.2
C	And enrolled in transfer math course	*Count cohort C* *Percentage = C/A*	831	22.2
	TRANSFER READY			
D	56+ transfer units	*Count cohort D* *Percentage = D/A*	395	10.6
E	And GPA 2.00+ (transfer courses)	*Count cohort E* *Percentage = E/A*	384	10.3
F	And successful completion of transfer English writing course	*Count cohort F* *Percentage = F/A*	377	10.1
G	And successful completion of transfer math course	*Count cohort G* *Percentage = G/A*	343	9.2
	TRANSFER READY RATE	*Count cohort G & C* Percentage = G/C	**343/831**	41.3

TRANSFER READY WORKSHEET

FRESHMEN COHORT FALL 1988

Enrollment Period: 4 years

Cohort		Calculation	Count	Percent
A	**FRESHMEN COHORT**	*Count Cohort A*	**3,580**	100.0
	TRANSFER DIRECTED			
B	Enrolled in transfer English writing course	*Count cohort B* *Percentage = B/A*	1,264	35.3
C	And enrolled in transfer math course	*Count cohort C* *Percentage = C/A*	739	20.6
	TRANSFER READY			
D	56+ transfer units	*Count cohort D* *Percentage = D/A*	403	11.3
E	And GPA 2.00+ (transfer courses)	*Count cohort E* *Percentage = E/A*	393	11.0
F	And successful completion of transfer English writing course	*Count cohort F* *Percentage = F/A*	390	10.9
G	And successful completion of transfer math course	*Count cohort G* *Percentage = G/A*	363	10.1
	TRANSFER READY RATE	*Count cohort G & C* Percentage = G/C	**363/739**	49.1

TRANSFER READY WORKSHEET

FRESHMEN COHORT FALL 1989

Enrollment Period: 4 years

Cohort		Calculation	Count	Percent
A	**FRESHMEN COHORT**	*Count Cohort A*	**3,465**	100.0
	TRANSFER DIRECTED			
B	Enrolled in transfer English writing course	*Count cohort B* *Percentage = B/A*	1,346	38.8
C	And enrolled in transfer math course	*Count cohort C* *Percentage = C/A*	775	22.4
	TRANSFER READY			
D	56+ transfer units	*Count cohort D* *Percentage = D/A*	431	12.4
E	And GPA 2.00+ (transfer courses)	*Count cohort E* *Percentage = E/A*	417	12.0
F	And successful completion of transfer English writing course	*Count cohort F* *Percentage = F/A*	413	11.9
G	And successful completion of transfer math course	*Count cohort G* *Percentage = G/A*	393	11.3
	TRANSFER READY RATE	*Count cohort G & C* Percentage = G/C	**393/775**	50.7

TRANSFER READY WORKSHEET

FRESHMEN COHORT FALL 1990

Enrollment Period: 4 years

Cohort		Calculation	Count	Percent
A	**FRESHMEN COHORT**	*Count Cohort A*	**3,455**	100.0
	TRANSFER DIRECTED			
B	Enrolled in transfer English writing course	*Count cohort B* *Percentage = B/A*	1,303	37.7
C	And enrolled in transfer math course	*Count cohort C* *Percentage = C/A*	772	22.3
	TRANSFER READY			
D	56+ transfer units	*Count cohort D* *Percentage = D/A*	413	12.0
E	And GPA 2.00+ (transfer courses)	*Count cohort E* *Percentage = E/A*	398	11.5
F	And successful completion of transfer English writing course	*Count cohort F* *Percentage = F/A*	393	11.4
G	And successful completion of transfer math course	*Count cohort G* *Percentage = G/A*	365	10.6
	TRANSFER READY RATE	*Count cohort G & C* Percentage = G/C	**365/772**	47.3

TRANSFER READY WORKSHEET

FRESHMEN COHORT FALL 1991

Enrollment Period: 4 years

Cohort		Calculation	Count	Percent
A	**FRESHMEN COHORT**	*Count Cohort A*	**3,232**	100.0
	TRANSFER DIRECTED			
B	Enrolled in transfer English writing course	*Count cohort B* *Percentage = B/A*	1,275	39.4
C	And enrolled in transfer math course	*Count cohort C* *Percentage = C/A*	781	24.2
	TRANSFER READY			
D	56+ transfer units	*Count cohort D* *Percentage = D/A*	409	12.7
E	And GPA 2.00+ (transfer courses)	*Count cohort E* *Percentage = E/A*	396	12.3
F	And successful completion of transfer English writing course	*Count cohort F* *Percentage = F/A*	388	12.0
G	And successful completion of transfer math course	*Count cohort G* *Percentage = G/A*	365	11.3
	TRANSFER READY RATE	*Count cohort G & C* Percentage = G/C	**365/781**	46.7